

Non-destructive Testing (NDT) Services Market to be Worth \$18.58 Billion by 2031





Meticulous Research®—a leading global market research company, published a research report titled, 'Non-destructive Testing (NDT) Services Market by Type (Inspection, Training, Others), Method (Radiographic, Ultrasonic, Others), Application (Flaw Detection, Others), End-use Industry (Oil & Gas, Manufacturing, Others), & Geography - Global Forecast to 2031'.

According to this latest publication from Meticulous Research®, the non-destructive testing (NDT) services market is projected to reach \$18.58 billion by 2031, at a CAGR of 9.4% from 2024 to 2031. The growth of the NDT services market is driven by stringent regulatory standards imposed by governments regarding public safety and product quality, the rising need to assess the structural integrity of aging infrastructure and assets, and the rising significance of advanced NDT techniques in the industrial sector. However, the high cost of NDT services restrains the growth of this market.

In addition, increasing investment in infrastructure projects in developing economies and a high inclination towards outsourcing NDT processes are expected to generate growth opportunities for the stakeholders in this market. However, the lack of a skilled workforce and the increased complexity of machines and structures are major challenges impacting market growth. Additionally, the growing use of robots for NDT and the integration of AI technology in the NDT process are prominent trends in the NDT services market.

Based on type, the global NDT services market is segmented into inspection services, training services, calibration and evaluation services, equipment rental services, and consulting services. In 2024, the inspection services segment is expected to account for the largest share of the global NDT services market. The segment's large market share is attributed to factors such as the increasing focus of players operating in the market on strategic developments to build inspection service capabilities and the need to inspect mass quantities of products among manufacturers. Various key players operating in the market are enhancing their inspection service capabilities through growth strategies such as acquisitions. For instance, in June 2020, Acuren (U.S.) acquired Suspendem (Canada), a leading provider of wind turbine maintenance and inspection services in North America.

However, the calibration and evaluation services segment is expected to record the highest CAGR during the forecast period. The need to keep equipment calibrated as per industry standards and the growing need for equipment calibration to broaden service capabilities for customers is expected to drive the growth of this segment in the coming years. In addition, regular calibration of NDT equipment is essential for accurate measurements and inspections, enabling informed decision-making and maintaining quality standards in operations. Such requirements are contributing to the growth of this segment.

Based on method, the global NDT services market is segmented into visual testing, ultrasonic testing, liquid penetrant testing, radiographic testing, electromagnetic testing, acoustic emission testing, and other methods. In 2024, the ultrasonic testing segment is expected to account for the largest share of the global NDT services market. The segment's large market share is attributed to the greater accuracy offered by ultrasonic testing compared to other non-destructive testing techniques for detecting the depth of internal faults and the thickness of



parts with parallel surfaces and the growing use of ultrasonic testing for the evaluation of pipelines. In addition, the increased use of ultrasonic testing for the evaluation of welds contributes to the growth of this segment. For instance, in December 2022, GF Piping Systems (Switzerland), a company specializing in maintenance-free piping systems made of plastics, evaluated the condition of each weld to test plastic piping systems by ultrasound, using a sophisticated algorithm to predict future performance.

However, the electromagnetic testing segment is expected to record the highest CAGR during the forecast period. The benefits of electromagnetic testing across end-use industries, the increasing focus of NDT equipment manufacturers in the development of electromagnetic testing equipment, and the growing use of various electromagnetic tests for testing the integrity of aircraft and aircraft parts are expected to drive the growth of this segment in the coming years. In addition, the growing focus of NDT equipment manufacturers on the development of NDT devices is contributing to the growth of this segment. For instance, in November 2022, UniWest (U.S.), a leader in the sensing technology industry, launched an EddyView II portable eddy current flaw detector.

Based on application, the global NDT services market is segmented into flaw detection, dimensional measurement, chemical composition determination, stress and structure analysis, and physical properties estimation. In 2024, the flaw detection segment is expected to account for the largest share of the global NDT services market. The large market share of this segment is attributed to the growing use of inspection testing for detecting variations in sizes, orientations, and shapes of materials and the increasing use of ultrasonic testing for multilayer material flaw detection. In addition, many industries are investing in advanced systems for flaw detection, contributing to the growth of this segment. For instance, in January 2023, Indian Railways announced plans to procure a modern ultrasound flaw detection system worth INR 10,000 million (USD 121.3 million) for detecting rail defects.

Moreover, the flaw detection segment is expected to record the highest CAGR during the forecast period. The increasing use of NDT testing in manufacturing for flaw detection due to extreme temperatures, stress, fatigue, and dynamic loads, and the implications and increasing initiatives of companies for the development of NDT equipment for flaw detection, is expected to drive the growth of this segment in the coming years. In addition, various NDT equipment manufacturers are focusing on the development of NDT devices for the detection of flaws. For instance, in June 2020, Eddyfi Technologies launched its PAUT flaw detector with TFM.

Based on end-use industry, the global NDT services market is segmented into oil & gas, aerospace, power generation, healthcare and medical devices, manufacturing, military & defense, supply chain and transportation, public infrastructure, water and waste management, and other end-use industries. In 2024, the manufacturing segment is expected to account for the largest share of the global NDT services market. The large market share of this segment is attributed to the growing focus of companies on the development of radiography testing systems and the growing need for material testing in automotive manufacturing to ensure the structural integrity and reliability of components used in safety-critical areas such as bodywork, brakes, and steering systems.



Additionally, key players are actively focusing on the development of radiography technology due to the growing adoption of radiography testing in automotive manufacturing. For instance, in May 2023, the Industrial Metrology Business Unit of Nikon Corporation (Japan) launched VOXLS 40 C 450, an innovative range of high-performance X-ray Computed Tomography (CT) systems.

Moreover, the manufacturing segment is expected to record the highest CAGR during the forecast period. The increasing adoption of X-ray technology and computed tomography (CT) for materials testing and the rising inclination of manufacturers towards additive manufacturing are expected to drive the growth of this segment in the coming years.

Based on geography, the global NDT services market is segmented into North America, Europe, Asia-Pacific, Latin America, and the Middle East & Africa. In 2024, Asia-Pacific is expected to account for the largest share of the global NDT services market. The large market share of this segment is attributed to the increasing industrialization, growing power generation projects in the region, the surge in oil and gas production across the region, and the growing need for inspection services in the oil and gas industry.

However, the Middle East & Africa is expected to record the highest CAGR during the forecast period. Factors such as the region's leading position in the oil and gas industry, government focus on increasing production of oil and gas, growing integration of robots for inspection of oil and gas infrastructure, stringent regulations for inspection of oil & gas industry assets and infrastructure are expected to drive the growth of the NDT services market in the coming years.

Key Players:

Some of the key players operating in the NDT services market are SGS SA (Switzerland), Bureau Veritas (France), DEKRA SE (Sweden), Intertek Group plc (U.K.), TÜV Rheinland (Germany), MISTRAS Group, Inc. (U.S.), TEAM, Inc. (U.S.), Waygate Technologies (Germany), Element Materials Technology (U.K.), Applus Services, S.A. (Spain), TÜV SÜD AG (Germany), Acuren (U.S.), Applied Technical Services, LLC (U.S.), Siemens Energy AG (Germany), PTS Group (U.K.), Vertech Group (Australia), TWI Ltd. (U.K.), NDT Group Inc. (Canada), Axess AS (Norway), Control Union (Netherlands), and Testia (France).

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